



Protein for
☐ Limits

ay

P14174. MACROPHAGE MIGRATI...[gi:1170955]

PubMed, Related Sequences

LOCUS MIF_HUMAN 115 aa PRI 01-NOV-1997
DEFINITION MACROPHAGE MIGRATION INHIBITORY FACTOR (MIF)
(GLYCOSYLATION-INHIBITING FACTOR) (GIF).
ACCESSION P14174
PID g1170955
VERSION P14174 GI:1170955
DBSOURCE swissprot: locus MIF_HUMAN, accession P14174;
class: standard.
created: Jan 1, 1990.
sequence updated: Nov 1, 1995.
annotation updated: Nov 1, 1997.
xrefs: gi: 312333, gi: 312334, gi: 188555, gi: 188556, gi: 187180,
gi: 187181, gi: 402701, gi: 402702, gi: 307284, gi: 307285, gi:
106943, gi: 423077
xrefs (non-sequence databases): SWISS-2DPAGE P14174, MIM 153620,
PFAM PF01187, PROSITE PS01158
KEYWORDS Macrophage; Inflammatory response; Cytokine; 3D-structure.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (residues 1 to 115)
AUTHORS Weiser,W.Y., Temple,P.A., Witek-Giannotti,J.S., Remold,H.G.,
Clark,S.C. and David,J.R.
TITLE Molecular cloning of a cDNA encoding a human macrophage migration
inhibitory factor
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 86 (19), 7522-7526 (1989)
MEDLINE 90017510
REMARK SEQUENCE FROM N.A.
REFERENCE 2 (residues 1 to 115)
AUTHORS Paralkar,V. and Wistow,G.
TITLE Cloning the human gene for macrophage migration inhibitory factor
(MIF)
JOURNAL Genomics 19 (1), 48-51 (1994)
MEDLINE 94245178
REMARK SEQUENCE FROM N.A.
REFERENCE 3 (residues 1 to 115)
AUTHORS Mikayama,T., Nakano,T., Gomi,H., Nakagawa,Y., Liu,Y.C., Sato,M.,
Iwamatsu,A., Ishii,Y., Weiser,W.Y. and Ishizaka,K.
TITLE Molecular cloning and functional expression of a cDNA encoding
glycosylation-inhibiting factor
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 90 (21), 10056-10060 (1993)
MEDLINE 94052102
REMARK SEQUENCE FROM N.A.
REFERENCE 4 (residues 1 to 115)
AUTHORS Wistow,G.J., Shaughnessy,M.P., Lee,D.C., Hodin,J. and Zelenka,P.S.
TITLE A macrophage migration inhibitory factor is expressed in the
differentiating cells of the eye lens
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 90 (4), 1272-1275 (1993)
MEDLINE 93165679
REMARK SEQUENCE OF 9-114 FROM N.A.
TISSUE=LENS
REFERENCE 5 (residues 1 to 115)
AUTHORS HOCHSTRASSER,D.F., FRUTIGER,S., PAQUET,N., BAIROCH,A., RAVIER,F.,
PASQUALI,C., SANCHEZ,J.-C., TISSOT,J.-D., BJELLQVIST,B., VARGAS,R.,
APPEL,R.D. and HUGHES,G.J.
TITLE Human liver protein map: a reference database established by
microsequencing and gel comparison
JOURNAL Electrophoresis 13 (12), 992-1001 (1992)
MEDLINE 93162045
REMARK SEQUENCE OF 1-10.
TISSUE=LIVER
REFERENCE 6 (residues 1 to 115)
AUTHORS Zeng,F.Y., Weiser,W.Y., Kratzin,H., Stahl,B., Karas,M. and
Gabijs,H.J.
TITLE The major binding protein of the interferon antagonist sarcolectin
in human placenta is a macrophage migration inhibitory factor
JOURNAL Arch. Biochem. Biophys. 303 (1), 74-80 (1993)
MEDLINE 93256574
REMARK SEQUENCE OF 2-23.
REFERENCE 7 (residues 1 to 115)
AUTHORS Sugimoto,H., Suzuki,M., Nakagawa,A., Tanaka,I. and Nishihira,J.

TITLE Crystal structure of macrophage migration inhibitory factor from human lymphocyte at 2.1 A resolution
JOURNAL FEBS Lett. 389 (2), 145-148 (1996)
MEDLINE 96338096
REMARK X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS).
REFERENCE 8 (residues 1 to 115)
AUTHORS Kato,Y., Muto,T., Tomura,T., Tsumura,H., Watarai,H., Mikayama,T., Ishizaka,K. and Kuroki,R.
TITLE The crystal structure of human glycosylation-inhibiting factor is a trimeric barrel with three 6-stranded beta-sheets
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 93 (7), 3007-3010 (1996)
MEDLINE 96181524
REMARK X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS).
REFERENCE 9 (residues 1 to 115)
AUTHORS Sun,H.W., Bernhagen,J., Bucala,R. and Lolis,E.
TITLE Crystal structure at 2.6-A resolution of human macrophage migration inhibitory factor
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 93 (11), 5191-5196 (1996)
MEDLINE 96224258
REMARK X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS).
COMMENT On Jan 29, 1996 this sequence version replaced gi:127090.

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. The original entry is available from <http://www.expasy.ch/sprot> and <http://www.ebi.ac.uk/sprot>

[FUNCTION] THE EXPRESSION OF MIF AT SITES OF INFLAMMATION SUGGEST A ROLE FOR THE MEDIATOR IN REGULATING THE FUNCTION OF MACROPHAGE IN HOST DEFENSE.

[SUBUNIT] HOMOTRIMER.

[DISEASE] MIF ACTIVITY HAS BEEN DETECTED IN LEUKOCYTE CULTURE SUPERNATANTS OF MICE DURING ALLOGRAFT REJECTION, IN THE SYNOVIA OF PATIENTS WITH RHEUMATOID POLYARTHRITIS, AND IN A VARIETY OF CHRONIC INFLAMMATORY LOCI.

[SIMILARITY] BELONGS TO THE MIF FAMILY.

FEATURES Location/Qualifiers
source 1..115
/organism="Homo sapiens"
/db_xref="taxon:9606"
Protein 1..115
/product="MACROPHAGE MIGRATION INHIBITORY FACTOR"
Region 106
/region_name="Conflict"
/note="N -> S (IN REF. 1)."
ORIGIN
1 mpmfivntnv praspvpgfl seltqqlaqa tgkppqyia hvvpdqlmaf ggssepalc
61 slhsigkigg aqnrsyskll cgllaerlri spdrviny ny dmnaanvgwn nstfa
//

January 10, 2000.

[Disclaimer](#) | [Write to the Help Desk](#)
[NCBI](#) | [NLM](#) | [NIH](#)